

IN THE CLAIMS:

- (a) Cancel Claim 36
- (b) Add Claim 37

Amend Claims 22-27 as follows:

Claim 22 change "claim 36 to...claim 37...
Claim 23 change "claim 36" to...claim 37...
Claim 24 change "claim 36" to...claim 37...
Claim 25 change "claim 36" to...claim 37...
Claim 26 change "claim 36" to...claim 37...
Claim 27 change "claim 36" to...claim 37...

REMARKS

Claim 37 is presented as a revision of Claim 36 which clarifies that applicant intends to refer to the various subclass of LDL and the subclasses of HDL, i.e., LDL has at least seven (7) components and LDL has five (5) subcomponents, see Figure 23. In addition, applicant has amended the claims to diagnostic engine which uses subclasses of HDL and subclasses of LDL data to identify patients who are not hyperlipidemic (elevated LDLC and/or depressed HDLC) but are never-the-less in need of treatment. This represents an important medical advancement. Ordinarily a patient with normal LDLC and HDLC are considered as having low cardiovascular risk and are not treated. Unexpectedly it has been discovered that about 40% of patients with normal LDLC and HDLC levels are in need of treatment. This need for treatment can be identified by examining the subclasses of LDL and the subclasses of HDL as pointed-out on pages 14 & 15 of the application:

Considering 954 patient samples (458 cases and 496 controls), age was a very significant predictor of CVD. Cases are significantly older than controls (60 vs. 52 years of age). After adjusting for the age difference, none of the risk factors are significantly different between the cases and controls. Thus, using the 954 patients, all of the differences in risk factors that exist between cases and controls are due to age, not disease status. All of these patients are high risk and the younger patients have not yet shown clinical manifestation of cardiovascular disease.